

## **MEMORANDUM**

TO: Robert Haynes  
Hearing Officer

THROUGH: Ali Mirzakhilili, P.E.  
Division Director

Paul Foster, P.E.  
Program Manager

FROM: Ravi Rangan, P.E.

**SUBJECT: The Delaware City Refining Company  
Division of Air Quality's Response Document for the Public Hearing Held on  
June 4, 2013 for the Delaware City Refining Company's Draft Title V Permit  
Draft Permit: AQM-003/00016 – Parts 1, 2 and 3**

DATE: \_\_\_\_\_

### **Background**

On January 20, 2013, the Department's Division of Air Quality (DAQ) advertised a public notice that it had developed a Draft Title V Renewal Permit (the TV permit) for the Delaware City Refining Company (DCRC). The notice was published in Sunday News Journal and the Delaware State News and invited the public to review DCRC's application and the draft permit. The public notice period was open for 30 days.

The renewal permit incorporates the new applicable terms and conditions from ten Regulation 1102 permits covering eight process unit operations and four storage tanks issued since the last Title V permit revision in April 2011.

### **Review of Application and Public Hearing**

During the initial 30 day public review period of the application, DAQ received comments from two parties: the Delaware Chapter of the Sierra Club and DCRC. The Sierra Club's comments, submitted by Ms. Amy Roe, were received on February 18, 2013, and are noted as comments 1-SC through 6-SC in the table below. The letter also requested a public hearing be held on the application and draft permit. The refinery's comments, submitted by Mr. Thomas Godlewski, were received via email on February 19, 2013 and are numbered 7-DCRC through 9-DCRC in the table below.

DAQ held a public workshop on March 25, 2013 to describe the TV permitting process as it applies to the DE City Refinery. At this workshop, DAQ explained the elements of the developed draft Title V permit renewal for the refinery and received favorable feedback from several attendees that the workshop was a useful tool in bringing the public up to speed prior to the formal hearing on the renewal Title V application for the refinery. A public hearing was held in Delaware City on June 4, 2013, to receive comments on DAQ's draft permit. The hearing was attended by approximately 1,800 citizens representing the refinery as well as the environmental community. During the hearing, 50 persons offered testimony. The comments have been grouped into four categories: issuing the permit as is, issuing the permit with certain conditions, denial, and other general statements. Further explanation is as follows:

- Issuance of the Permit: 17 persons supported the renewal of DCRC's Title V permit without any

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further conditions or requirements to be added. Many spoke in favor of the refinery, its improved operations, and the importance of having good-paying jobs.

- Issuance of the Permit with Conditions: 17 persons testified they supported the issuance of the permit but conditioned their support to the refinery enacting a various number of enhancements and improvements which would then be covered by the permit. Many of these persons spoke of supporting comments made by the Delaware Chapter of the Sierra Club.
- Denial of the Permit: One person offered testimony directly opposing the renewal of this permit. That person cited the "egregious impacts of the toxics (i.e., VOCs, sulfur dioxide, ammonia, etc.) on human health and the environment" and that the refinery recently began processing heavy Canadian tar sands.
- Other Comments: 15 persons gave testimony on various topics but did not clearly state their outright support for or against issuance of the permit. Most comments dealt with issues such as health concerns, jobs, pollution, and the Canadian tar sands.

These comments have been broadly grouped under 10-PUBLIC SUPPORT and 11-PUBLIC OPPOSE

The Environmental Integrity Project (EIP) represented by Mr. Sparsh Khandeshi made 3 comments. These comments and DAQ's responses are addressed in sections #12-EIP through #14-EIP.

The Delaware Chapter of the Sierra Club submitted a letter during the hearing with 24 points. Those comments are addressed in sections #15-SC through #38-SC in the table below.

Finally, the US EPA made one comment. This comment and DAQ's response is addressed in section # 39-EPA.

Additionally, because the record was left open for a 30 day period after the hearing, the Department set up an online repository ([DNREC.PublicComments@state.de.us](mailto:DNREC.PublicComments@state.de.us)) to receive additional comments during this open period. The Department received 3 additional comments in support of the renewal and 163 additional comments either opposing the renewal or requesting additional requirements and conditions inserted into the permit. After careful review of all the additional comments, DAQ has categorized the public comments under 2 broad categories, i.e., those supporting the Title V permit renewal and those opposing the Title V permit renewal. Comment #10-PUBLIC SUPPORT highlights 3 submittals received by the Department and Comment #11-PUBLIC OPPOSE highlights 3 submittals received by the Department.

Appendix "A" of this memorandum is the suggested "Proposed" permit that incorporates the Proposed Corrections detailed in the Memorandum titled Errata Changes to Draft Permit dated May 29, 2013 from Ravi Rangan to Paul Foster. This memorandum was included in DAQ's document package to the Hearing Officer on June 4, 2013.

This application by DCRC is for the renewal of the facility's TV permit. The TV permit is by definition an omnibus permitting program designed to bring in all applicable requirements into the body of a single operation permit. Thus, the TV permit is a dynamic instrument that is renewed periodically to ensure that it is up to date and inclusive of new changes. As noted above, DAQ received numerous comments with some supporting and others opposing renewal of this TV permit. DAQ acknowledges some of the comments are meritorious. To those comments, DAQ has provided in its reconciliation table reasoned explanations as to

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why it agrees or disagrees with a specific comment. On the other hand, DAQ responds to comments that cavil by noting that they are not germane to this permitting exercise. Appendix "A" contains the suggested Proposed TV permit renewal that includes all changes deemed meritorious. DAQ suggests issuing the permit in Appendix A to EPA Region III for their 45-day review of the proposed permit.

I hope this information will assist you in reviewing the issues and making your recommendation to the Secretary. Your patience in awaiting receipt of these responses is appreciated. If you have any questions, please call me at (302) 323-4542.

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Comment Reference	Comment Summary	Responses/Actions Taken by DAQ
1-SC	<p>The permit application describes the following changes to air emissions:</p> <ul style="list-style-type: none"><li>• Increase in Total Suspended Particulates by 29% (Page 186).</li><li>• Increase in Sulfur Dioxide emissions by 4.7% (Page 190).</li><li>• Increase in Carbon Monoxide emissions by 14.2% (Page 192).</li><li>• Increase in Volatile Organic Compound emissions by 12.3% (Page 192).</li><li>• Increase in Sulfuric Acid emissions by 17.2% (Page 194).</li><li>• Increase in Ammonia emissions by 15.9% (Page 194).</li><li>• Increase in Lead emissions by 33.3% (Page 195).</li></ul> <p>This permit application therefore proposes to dramatically increase the amount of pollution from the Delaware City Refinery. While the capacity of the refinery will stay the same, at 191,000 barrels per day, we question how the refinery would have the need to expand its allowable level of pollution by such large amounts. We are concerned about the hazardous nature of processes that are ongoing at the Refinery, which was built in 1956 and 1957, and the implications of these increases for deteriorating environmental conditions. We ask that the Refinery explain at a public hearing how pollution will increase when their refining capacity is not increasing by a corresponding amount. We ask that the refinery include any new fuels by rail that are providing the feedstock for refining processes, including Canadian tar sands, in these expanded air pollution emissions.</p>	<p>DAQ wants to clarify that this comment is based on a misunderstanding of the proceeding. This TV permit renewal does not authorize any new emissions increases. The emissions increases referred to in Comment #1-SC are attributable to the Bin 1 Project. The Bin 1 Project, also known as the DCRC Upgrade and Optimization Project, was undertaken by Valero, the former owner of the Delaware City Refinery in 2008 as part of their overall strategy to optimize refinery operations. While the Bin 1 Project had refinery wide ramifications, the two primary affected unit operations were the crude unit (CU) and the fluid coking unit (FCU). The resulting emissions changes to the FCU are the emissions changes identified in Comment #1-SC.</p> <p>The Bin 1 Project did not trigger non-attainment NSR. But it triggered PSD NSR review for the sulfur dioxide emissions increases. The project did not trigger PSD NSR for any other pollutants either because the increases were less than the significance or because the facility was able to net out of PSD review.</p> <p>Because the project triggered PSD review for SO<sub>2</sub>, the permitting exercise was carried out pursuant to the provisions of 7 <b>DE Admin. Code</b> 1125. Draft permits were made available to the public and a hearing was held on August 18, 2008. Construction permits were issued on September 8, 2008.</p> <p>Upon completion of the modifications authorized by the Bin 1 Project construction permits, operation permits were issued on September 7, 2011.</p> <p>As part of the current renewal of the facility's Title V permit, DAQ is simultaneously making a significant permit modification to incorporate the Bin 1 project operation permit conditions along with several other recently issued 7 <b>DE Admin. Code</b> 1102 permits. It is noteworthy that this incorporation does not itself allow the emissions increase. Any emissions changes were already authorized as part of the permitting steps ending in issuance of the operation permits mentioned above on September 7, 2011. The current permitting action only moves the current limits from the individual operation permits into the</p>

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		facility-wide Title V permit.
2-SC	<p>The increase in pollution is of particular concern as the area surrounding the refinery has already been identified as a census tract of high cancer risk. According to the Centers for Disease Control and Prevention and the Department of Health and Social Services, the area of surrounding the refinery is a high cancer census tract.</p> <p>Age-Adjusted Cancer Rates per 100,000 people: United States = 465.1 State of Delaware = 517.0 Delaware City's Census Tract = 680.5</p> <p>The relationship between air pollution from the Delaware City Refinery has not been addressed in this permit application, which instead proposes to increase harmful air pollutants. Such an extraordinary expansion in air pollution, including known human carcinogens, metals and toxic chemicals, without a corresponding implementation of air pollution monitoring at the fence line of the Refinery and in residential communities, should be discussed comment in a public hearing.</p>	<p>As mentioned above in our response to Comment #1-SC, this permitting action does not itself allow the emissions increase. Any emissions changes were already authorized as part of the permitting steps ending in issuance of the operation permits mentioned above on September 7, 2011. The current permitting action only moves the current limits from the individual operation permits into the facility wide Title V permit.</p> <p>While DAQ is cognizant of the numerous comments made with regard to fence-line monitoring around the DE City refinery, it is pertinent to evaluate this comment in the context of the State's existing monitoring infrastructure. The U.S. EPA has developed siting requirements for each of the "criteria" air pollutants. Delaware has had air monitoring sites located around the state since the late 1960s. The original focus of the monitoring network was on monitoring close to "point" sources (large facilities with high emissions). DNREC has an air monitoring station on Rt. 9 adjacent to the baseball field at the Delaware City ballpark that presently monitors CO, SO<sub>2</sub>, VOCs (including some carcinogens) and PM<sub>2.5</sub> pollutant levels for Delaware City. The location of this monitoring station is in accordance with federal requirements and guidelines and is providing quality assured data. Federal guidance include considerations such as the purpose of the monitoring (representative ambient concentrations, maximum source impact, etc.), the pollutant or pollutants to be monitored, the population density, location of other monitoring stations (including those in other states) and operational efficiency. Federal siting requirements include distance from trees, buildings and roadways, distance from major point sources, and height of the sampler probe or inlet. Other factors include site security and access, availability of electricity and telephone service, aesthetics and local zoning issues, and long-term (+10 years) site availability. Furthermore, because the emissions from the refinery's major emission sources occur from tall stacks (over 200 feet), a receptor located at the facility's fence line will most likely not represent maximum concentration or a measure of exposure. Finally, the primary requirement of the TV permitting program is to provide all applicable requirements in a single operation permit. Fence line monitoring around the perimeter of the DE City Refinery is not an applicable</p>

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		requirement as defined by 7 <b>DE Admin. Code</b> 1130. For all of the above reasons, DAQ disagrees that fence line monitoring be included as a permit condition in this Title V permit renewal. Every applicable requirement in the permit has an associated compliance methodology and monitoring/record keeping requirement. The permit relies on measuring compliance at the emission unit by periodic or continuous direct or surrogate monitoring rather than assess compliance by fence line monitoring.
3-SC	Since January 2011, and under the new ownership of PBF, the Delaware City Refinery has violated its air permits 36 times. These individual violators are detailed in the table below. As the Delaware City Refinery is unable to meet the conditions of its existing permits, we question the permitting process for this new Title V permit, and ask that these permit violations be addressed in a public hearing.	DAQ notes that Comment #3-SC merely lists the various violations as listed in the Department's listing of issued NOVs and asks that the documented violations be addressed in the context of a public hearing on the Title V permit's renewal application. Violations are addressed as part of the Department's enforcement process which is separate from operating permit renewal process under Title V. The Department has issued an Administrative Order to the refinery which addressed a number of the listed violations and imposed penalties for those violations.
4-SC	<p>The refinery is a known polluter and we have asked DNREC to assign the refinery "chronic violator status." In 2011, SB 92 w/ HA 1 revised Title 7 Chapter 79 of the Delaware Code for DNREC's chronic violator program and clarified definitions, standards and criteria, and updated DNREC's authority. Since January 2011 and under the ownership of PBF, the Refinery has had 48 DERNS notifications for pollution releases, the most recent of which was this morning, February 18, 2013. These releases are detailed in the table below.</p> <p><i>[DAQ comment – this table has been omitted for brevity]</i></p> <p>DNREC has not yet revised its chronic violator regulations or initiated the regulatory rule-making process to bring them up to date with the recent revisions to the Delaware Code. We question the process of DNREC proceeding with a new air pollution permit for the Delaware City Refinery, while it has not taken action on regulations for chronic violator</p>	DAQ disagrees with Comment #4-SC. DAQ has the dual responsibility of issuing permits as well as initiating enforcement action when necessary to address non-compliance issues. But these responsibilities are separate and distinct from one another. Indeed, DAQ has reviewed, and will continue to review all instances of non-compliance, including those listed in Comment #4-SC, and evaluate each such instance for potential enforcement action. Therefore, while DAQ is cognizant of the Chronic Violator Regulation as being a potent tool in its enforcement arsenal, it does not view this regulation as having any bearing on the issuance of a permit, until the facility in question has been determined to be a chronic violator after due process.

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	status. We ask that DNREC provide this information at the public hearing, and include a timeline for chronic violator regulatory rule-making.	
5-SC	The cooling needs of the Refinery that result from this air permit have not been addressed in the application. On August 31, 2002, the Clean Water Act NPDES permit for the Delaware City Refinery expired, and the amount of aquatic life destroyed by the refinery's once-through cooling system is well documented in numerous reports. The permit application fails to address the impact of the Refinery's operations on its cooling water needs. We ask DNREC to consider how this permit application will impact the Delaware River and at-risk aquatic species. The cooling needs of this air permit should be discussed at a public hearing.	This permitting action pertains to the renewal of the facility's Title V permit which is an air permit issued in accordance with 7 <b>DE Admin. Code</b> 1130. The cooling water needs of the Delaware City Refinery and the NPDES permit fall under the purview of the Water Program administered by the Department's Division of Water Resources. Therefore, DAQ does not find this comment to be germane to this permitting action.
6-SC	DNREC has not adequately distributed the Title V Permit Application. Upon our request to examine the Title V permit application and permit under review, the following pages of the permit have been provided by Ms. Laura Bogus on January 30, 2013: Page 35, 36, 29, 171-198, 204-220, and 245-251. Our request on February 1, 2013 for the remainder of the Title V permit has not received a response from the Department. We therefore request that at least <u>60 days</u> prior to the public hearing, the full Title V permit, including the application for changes, be made available to us in electronic form to provide us with an opportunity to review the document in its entirety.	Comment #6-SC stating that the Sierra Club has not been provided all pages of the application is incorrect. The relevant pages appended to the application are those pages where the applicant has noted changes. All other pages remain unchanged. The Sierra Club was informed in an e-mail dated February 21, 2013 from Ali Mirzakhaili to Ms. Amy Roe that should the Sierra Club wish to see the original permits in their entirety, DAQ would be happy to provide instructions on how to obtain them online or email a copy. The Sierra Club was unresponsive to DAQ's offer.
7-DCRC	Part 1 – fe.1.ii.A – the language of this permit does not match the language of the underlying cited regulation. To avoid any confusion as to the compliance obligation imposed, we would request changing the language to match the exact language found in the underlying regulation and specifically cite the three distinct periods listed in 40 CFR	The exact language of 40 CFR 63.119(b)(1) has been inserted.

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	63.119(b)(1) in which the floating roofs are not required to be floated on the liquid surface. (The regulation is detailed here).	
8-DCRC	<p>Part 1 – Section jc of the permit contains a large number of “boilerplate” type requirements for the facility’s NOx Cap (PAL). Most of these new requirements are neither “applicable requirements”, as that term is defined by Regulation 30, nor are they conditions required by Section 6 of regulation 30. As such, these conditions are unnecessary as not required or supported by applicable law. 40 CFR 52.21(aa) contains a number of provisions that impose certain obligations on a permittee under certain conditions without requiring that these obligations be included as permit conditions. In fact, 40 CFR 52.21(aa)(7) enumerates in subsections (i) through (x) what is required to be contained within the PAL. Despite the fact that a number of these obligations are not necessarily applicable to current operations at the DCRC, DNREC has restated these regulatory provisions and included them as additional compliance conditions. DCRC has no ability to certify actual compliance with conditions that impose obligations upon hypothetical future conditions; nor does DCRC have the ability to certify compliance with conditions that dictate how DNREC would respond to such hypothetical future conditions. Accordingly, these conditions are vague, unnecessary and not required or supported by applicable law. These conditions include items 6.3, 6.4, 6.5, 6.6, 5, 7, 8, 11 (the second Condition 11).</p>	<p>DAQ concurs that Part 1 Condition 3 – Table 1.jc of the permit contains a number of “boilerplate” type requirements for the facility’s NOx Cap (PAL). However, DAQ disagrees that these boilerplate requirements are neither “applicable requirements”, as that term is defined by 7 <b>DE Admin. Code</b> 1130, nor are they conditions required by Section 6 of 7 <b>DE Admin. Code</b> 1130. Indeed, as the heading for Table 1.jc states, this permit condition provides a Plant-wide applicability test for New Source Review purposes that has been reviewed in conjunction with the US EPA and been applied to other PAL permits issued by the State of Delaware. Therefore, DAQ is not deleting these conditions.</p>
9-DCRC	<p>In addition to the general comments listed above regarding Section jc, we offer the following specific comments:</p> <ul style="list-style-type: none"><li>• Condition 6.2 contains “DATE and DATE” as placeholders for actual dates. Please ensure actual dates are entered into the final version.</li></ul>	<p>DAQ will insert the actual dates in the final permit and the cross-references and number has been corrected.</p>



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	<ul style="list-style-type: none"><li>• Condition 10 mistakenly refers to Condition 9.1 and 9.2 rather than 10.1 and 10.2</li><li>• Condition 11 mistakenly refers back to Condition 9 rather than Condition 10.</li><li>• There are two Condition 11's.</li></ul>	
10- PUBLIC SUPPORT	<p>The March of Dimes Delaware wrote, "The refinery has proven to be a good corporate citizen and is an integral partner in the work of the March of Dimes community. By not approving the permit request The March of Dimes Delaware Chapter would lose a significant and valuable partner."</p> <p>Mr. N. Snook wrote, "We have this issue coming up with permits, and as far as I'm concerned the refinery already has the permits and wants to bundle them. Where is the problem?... As like any place of business I'm sure we can continue to improve our cleanliness to the environment and other green efforts but they are continuing to work on this now... Please approve the permit for the Delaware City oil refinery and save Delaware's economy and way of life."</p> <p>Mr. J. McDaniel wrote "Since the restart, the environmental record of the refinery has probably been the best ever. With the company's decision to not restart the gasifier, carbon dioxide emissions are down. The employees are committed to operating the refinery in a safe and responsible manner. I read an article the other day on line by an environmentalist that questioned, "Does it always have to be jobs versus the environment". No, I think these 2500 refinery and related jobs and the estimated 100 million dollars in yearly tax revenue can exist while working within the parameters of the law.</p>	DAQ has no comment.
11-	Raggedypearl wrote: "My husband and I moved to Delaware City 3 years ago. The stinking refinery was closed when we	These comments are common to the comments submitted by the Sierra Club and over 120 other citizens. DAQ has addressed these comments later in this

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<p>PUBLIC OPPOSE</p>	<p>moved there. We fell in love with the little Town of Delaware City, and it was great returning to an area where I spent part of my childhood. I rode my bike all over town, by myself and with my Grand Sons... Then the refinery "restarted". It was hell after that. I remember the first time they terrible odors came into our home... My throat burned, I coughed, my eyes burned and watered. It was nauseating. My husband had to use an inhaler to breath. We had to close the windows and stay inside when these accidents happened. Time and time again... It was disgusting. We moved away from Delaware City last year. Away from being near our Grand Sons. And it cost us thousands of dollars.</p> <p>Ms. L. Howard wrote: "As a concerned U.S. citizen, I think PBF Energy should not export the petcoke generated by Delaware Refinery. Shipping petcoke to China represents a significant investment of petrochemical fuel not to mention the risk of spills while in transit. Instead, PBF Energy should form a partnership with the University of Delaware and conduct research regarding bio-remediation of petcoke using bacteria, fungi, and plants to decrease the threat petcoke poses to our natural environment."</p> <p>Ms. E. Van Alyne wrote "Since I showed up at the permit hearing and was not allowed in to comment, I am writing to let you know the things I would like in order for the refinery to receive a new Title V Permit are:</p> <ol style="list-style-type: none"><li>1. Real-time air quality monitoring at the fenceline and in residential neighborhoods (that run continuously and can be accessed online).</li><li>2. Increased safety measures to prevent flaring and pollution.</li><li>3. A reduction in air pollution emissions, not an increase.</li></ol>	<p>table.</p>
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	<ol style="list-style-type: none"><li>4. An NPDES permit within a reasonable time frame (months).</li><li>5. Accountability for the mobile emissions of the train cars (diesel train engines, off-gassing)</li><li>6. An adequate and easily accessible Emergency Response plan and evacuation plan in case of a major incident.</li><li>7. Pollution limits to be put in place for equipment start-up and shut down."</li></ol>	
12-EIP	<p>There are two amendments that I would like to see DNREC make to the Title V permit, and that is --one is ensure that it complies with all Federal NSR requirements. And two, that all monitoring in the permit -- or the permit be amended to require monitoring that is sufficient to assure compliance with all emission limitations in the permit. With regards to complying with Federal NSR requirements, the Title V permit incorporates a plant-wide applicability limit, a PAL, that is impermissible and not authorized under the Clean Air Act. DNREC has never submitted a state implementation plan that requests authorization from the EPA to issue PAL permits or implement PAL limits. The PAL was created by a settlement agreement between the State and the facility and it was not subject to public comment and it was not -- there's no permit application for the public to review. So there was no opportunity for meaningful public participation, as Federal law requires. The second issue is that, as Federal law requires, a PAL must be based on the baseline emissions of the facility. There is no showing in the public records that the NOx PAL limit is based on the historical baseline of the facility. And so, that is what I would like to say about the PAL.</p>	<p>DAQ disagrees with EIP-1 that the Title V permit incorporates a plant-wide applicability limit, a PAL, that is impermissible and not authorized under the Clean Air Act. DAQ acknowledges that the PAL was created as a result of an Agreement between the Department and PBF Energy in 2010 when PBF Energy acquired the DE City Refinery from Valero. DE Regulations do not prohibit PALS and regulatory support for PALS exists in Delaware's SIP approved 7 <b>DE Admin. Code 1125</b>. Delaware's authority to issue PALS comes from a reasoned interpretation of 7 <b>DE Admin. Code 1125</b>, which defines Actual Emissions as:</p> <p><i>"Actual Emissions" means the actual rate of emissions of a pollutant from an emission unit, as determined in accordance with the three subparagraphs below.</i></p> <ul style="list-style-type: none"><li>• <i>In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation. Actual emissions shall be calculated using the unit's actual operating hours, production rates, and types of materials processed, stored, or combusted during the selected time period.</i></li><li>• <i>The Department may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit.</i></li></ul>

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• *For any emissions unit, which has not begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date.*

The second bullet in the definition indicates "the Department may presume that source-specific allowable emissions for the unit are equivalent to actual emissions of the unit." Therefore, under 7 **DE Admin. Code** 1102 we set a very stringent source specific allowable emissions limit (i.e., an emission cap) that covers all NOx emissions in an 1102 permit. We then include in the permit PAL type provisions that indicate review under 1125 is not triggered so long as the cap is not exceeded (i.e., so long as actual emissions remain below allowable emissions – which stems from our reasoned interpretation of the definition of actual emissions in 1125). We also include necessary monitoring, recordkeeping and reporting provisions, and provisions that subject all new/modified units since the establishment of the cap to review under 1125 before any relief from the cap is ever considered. Public and EPA review of the permit is provided for before it is issued. This is the same legal basis DNREC used to issue previous PALs, including one cited as a model by EPA in crafting its PAL regulation.

A comparison of this refinery PAL to what it would look like if Delaware followed the federal PAL provisions would clearly show this PAL is environmentally superior to the federal PAL provisions.

Below is a table of historical emissions for the refinery, and a comparison of the Delaware PAL versus what a federal PAL would look like.

The data in the table below is from our annual emissions inventory. The refinery did not operate at full capacity during the last few years so we compiled data back to 2002 to show a more complete picture of how emission have changed over time.

Year	Delaware City Refinery Emissions (TPY)				
	NOx	VOC	SO <sub>2</sub>	CO	PM <sub>2.5</sub>

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<b>2011</b>	1071.5	139.36	333.17	617.33	261.45
<b>2010</b>	61.77	173.63	54.98	22.99	11.64
<b>2009</b>	1,786.94	444.04	726.16	1,500.73	480.83
<b>2008</b>	2,524.68	596.88	2,547.57	1,760.12	446.46
<b>2007</b>	2,838.91	640.68	2,844.09	2,614.13	560.19
<b>2006</b>	2,921.55	334.47	25,955.54	3,048.23	942.27
<b>2005</b>	2,963.09	824.88	26,476.13	4,021.36	1,039.54
<b>2004</b>	3,459.55	698.08	27,553.81	9,692.26	1,653.52
<b>2003</b>	3,403.77	596.25	34,149.81	6,448.09	1,098.37
<b>2002</b>	3,554.62	828.91	34,096.48	3,857.94	904.04

Regarding the Delaware PAL versus what a federal PAL would have looked like – it's Delaware at 1,650 tons versus federal at 3,480 tons.

- Delaware PAL:
  - The initial PAL was set at 2,525 tons – actual 2008 emission's levels. 2008 represented the lowest level of full year NOx emissions from the refinery, and provided a significant reduction relative to Delaware's 2002 ozone SIP baseline (i.e., the baseline for the 1997 ozone standard).
  - The final PAL was set at a level of 1,650 tons, beginning in 2015. This step-down provides an additional significant reduction to aid in the attainment and maintenance of the 2008 ozone standard (Delaware's attainment date for the 2008 standard is in 2015).
- If the federal procedures had been followed to set a PAL:
  - The initial PAL would have been set at 3,480 tons – the highest consecutive 24-month period during the prior 10-years. Since the PAL was established in 2011, this 10-year look back period would have comprised 2002 through 2011.
  - The PAL would have been set for a term of 10-years, with renewal at a higher level possible.

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		DAQ also disagrees with EIP's assertion that the PAL was not subject to public comment. DCRC had submitted a permit application for a Significant Permit Modification on August 15, 2010. DAQ developed a draft permit and legal noticed its availability for public review on January 30, 2011 for a period of 30 days. The Department received no requests for a public hearing. Upon receiving no adverse comments on the proposed permit from the US EPA, a final permit was issued on April 5, 2011. This proceeding simply incorporates the existing PAL into the Title V Provision and does not adopt a new PAL.
13-EIP	<p>With regards to monitoring that is sufficient to assure compliance, first there is the PAL limit, and if that PAL limit is in fact valid, there must be additional monitoring at the refinery to assure compliance with that limit.</p> <p>The refinery has several heaters that do not require -- that currently are not required to do annual stack testing. And there's no way to assure that the emissions from those heaters is actually what the refinery is stating it is without annual stack testing.</p> <p>Therefore, we are requesting that DNREC amend the Title V permit to require tests in each heater to which the PAL applies, or in the alternative, annual stack testing done at representative conditions for the intensity or load rate of that heater.</p>	<p>DAQ disagrees. There are 52 NOx emitting point sources in the refinery. Collectively these sources represent a maximum heat input of 8531 mmBtu/hour. On a heat input basis, NOx emissions resulting from emissions units totaling 7097 mmBtu/hour are monitored by Continuous Emissions Monitoring Systems (CEMS), i.e., 83.2 %. Annual stack tests are required for units totaling 727 mmBtu/hour (8.5 %) and NOx emissions from the remaining units are based on fuel usage, fuel quality and representative emissions factors. Other affected units require stack testing on a periodic basis in accordance with all applicable regulations. Thus, 92 % of refinery NOx emissions are monitored by either CEMS or an annual stack test. Furthermore, because the regulatory standard of performance for CEMS are to sample, analyze, and record data every fifteen minutes while the emission unit is operating, DAQ has incorporated an additional measure of quality assurance by specifying that at a minimum, the CEMs shall capture a minimum of 90% of the operating data each month or 95% of the operating data each quarter. DAQ is convinced the draft permit provides an adequate mechanism to ensure compliance with the NOx PAL.</p>
14-EIP	<p>With regard to flares, the refinery must improve its flare monitoring. Flares are assumed to have a 98 percent destruction efficiency or 99 percent combustion efficiency. This is not the case.</p> <p>It's been shown through several EPA tests in studies across the country.</p>	<p>While DAQ is cognizant of EPA's on-going efforts to improve the efficiency and efficacy of flare systems, DAQ disagrees with the EIP's comment that the refinery must improve its flare monitoring. DAQ's approach to ensuring minimization of flaring practices is amongst the most stringent in the nation. This is because DAQ's draft permit, while it allows operation of the flare to safely combust and dispose of gases that would otherwise pose a threat to the refinery, it nonetheless does not authorize any emissions that result from such flaring. In other words with the exception of emissions resulting from operation</p>

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	<p>To remedy the situation, the refinery must install gas chromatographic monitoring at the inlet of the flare to measure the VOC and other components going into the flare, a flow meter to measure the total volume of gas going to the flare. Additionally, a wind meter and steam controls. This will help the refinery assure that the flare is not being oversteamed and that 98 percent combustion efficiency is being achieved at the flares, and excess emissions are not being dumped into the environment.</p>	<p>of the flare pilots (which by definition have to be lit at all times), any and all flare emissions are considered to be excess emissions. DAQ believes such excess emissions, should they occur, are adequately addressed by DAQ's enforcement program. Furthermore, DCRC's flaring and blowdown system is equipped with a flare gas recovery system and the draft permit requires at least 1 flare gas recovery compressor to be operational at all times. The draft permit also requires weekly sampling of the flare header followed by chromatographic analysis. Therefore, DAQ does not see the necessity to specify the additional requirements suggested by the EIP.</p>
15-SC	<p>It is the purpose of the Clean Air Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population" (42 USC § 7401). The Title V permit is a requirement under the Clean Air Act for facilities that emit hazardous air pollutants (42 USC §7412). That we are here for a Title V permit is an acknowledgement, by definition, that the Delaware City Refinery is a source of hazardous air pollutants that place public health and welfare at such risk that they must be permitted.</p> <p>Delaware is in nonattainment status with the Clean Air Act's Criteria Air Pollutants for ozone and fine particulates: The following table is drawn from the EPA's "Currently Designated Nonattainment Areas for All Criteria Pollutants":</p> <p><i>[DAQ comment – this table has been omitted for brevity]</i></p> <p>The improvement in air quality should be prioritized in the development of long-term permits for the Delaware City Refinery. While ozone and fine particulates are in nonattainment, the air quality monitoring station near the Delaware City Refinery, as described in the "Delaware Annual Air Quality Report 2011" (p. 9), only samples for sulfur dioxide, carbon monoxide and wind speed/direction. The air quality monitoring program is inadequate in</p>	<p>DAQ disagrees. While DAQ is cognizant of the numerous comments made with regard to fence line monitoring around the DE City refinery, it is pertinent to evaluate this comment in the context of the State's existing monitoring infrastructure. The U.S. EPA has developed siting requirements for each of the "criteria" air pollutants. Delaware has had air monitoring sites located around the state since the late 1960s. The original focus of the monitoring network was on monitoring close to "point" sources (large facilities with high emissions). DNREC has an air monitoring station on Rt. 9 adjacent to the baseball field at the Delaware City ballpark that presently monitors CO, SO<sub>2</sub>, VOCs (including some carcinogens) and PM<sub>2.5</sub> pollutant levels for Delaware City. The location of this monitoring station is in accordance with federal requirements and guidelines and is providing quality assured data. Federal guidance include considerations such as the purpose of the monitoring (representative ambient concentrations, maximum source impact, etc.), the pollutant or pollutants to be monitored, the population density, location of other monitoring stations (including those in other states) and operational efficiency. Federal siting requirements include distance from trees, buildings and roadways, distance from major point sources, and height of the sampler probe or inlet. Other factors include site security and access, availability of electricity and telephone service, aesthetics and local zoning issues, and long-term (+10 years) site availability. Furthermore, because the emissions from the refinery's major emission sources occur from tall stacks (over 200 feet), a receptor located at the facility's fence line will most likely not represent maximum concentration or a measure of exposure. Finally, the primary requirement of the TV permitting program is to provide all applicable requirements in a single operation permit.</p>

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	<p>Delaware to protect public health from the risks of Criteria Air Pollutants, and of emissions from the Delaware City Refinery.</p>	<p>Fence line monitoring around the perimeter of the DE City Refinery is not an applicable requirement as defined by 7 DE Admin. Code 1130. For all of the above reasons, DAQ disagrees that fence line monitoring be included as a permit condition in this Title V permit renewal. Every applicable requirement in the permit has an associated compliance methodology and monitoring/record keeping requirement. The permit relies on measuring compliance at the emission unit by periodic or continuous direct or surrogate monitoring rather than assess compliance by fence line monitoring.</p>
16-SC	<p>Given that the capacity of the refinery will stay the same, at 191,000 barrels per day, we have asked DNREC in our public hearing request on February 18, 2013 to explain why the permit application proposes these dramatic increases in pollution in the fluid coking unit:</p> <ul style="list-style-type: none"><li>• Increase in Total Suspended Particulates by 29% (Page 186).</li><li>• Increase in Sulfur Dioxide emissions by 4.7% (Page 190).</li><li>• Increase in Carbon Monoxide emissions by 14.2% (Page 192).</li><li>• Increase in Volatile Organic Compound emissions by 12.3% (Page 192).</li><li>• Increase in Sulfuric Acid emissions by 17.2% (Page 194).</li><li>• Increase in Ammonia emissions by 15.9% (Page 194).</li><li>• Increase in Lead emissions by 33.3% (Page 195).</li></ul> <p>We have not received any response to our request for this information to date.</p> <p><b><i>We ask for a response to this request in writing within the next 14 days, and that the public</i></b></p>	<p>DAQ addressed this misunderstanding in response to comment #1-SC at the beginning of this table and disagrees that the Title V permit renewal is authorizing increases.</p>



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	<b><i>comment period for the Title V permit be extended 30 days to enable us to respond to this information.</i></b>	
17-SC	<p>It is the responsibility of government to include public comments in the deliberation over pollution limits. DNREC acted inappropriately in pressuring the person who submitted the public hearing request for the Significant Permit Modification in 2011 into withdrawing that hearing request because of the delays that a hearing would cause to the refinery. A public hearing for the Title V Significant Permit Modification for the restart of the refinery was not held, and public concerns about increases in air pollution due to the restart of the refinery equipment, and the resumption of refinery processes, were intentionally restricted from being entered into the public record.</p> <p><b><i>We ask the DNREC Secretary to issue a Secretary's Order to the Department specifically instructing staff that asking members of the public to withdraw permit hearing requests is an inappropriate exercise of their authority, and that this type of behavior is not allowed by government.</i></b></p>	<p>The Department received no request for a public hearing on DCRC's application for a Significant Permit Modification in 2011.</p>
18-SC	<p>Several projects have been approved at the Refinery since this permit application was submitted on May 22, 2012. These include the following:</p> <p><u>October 2, 2012: APC-2013/0030 Crude Oil Railcar Unloading Project Permit</u>, 10 pounds per day of VOCs. There was no public notice of this permit, no public comment was collected, and no public hearing held, which prevented DNREC from incorporating public concerns about air quality into the permit conditions.</p> <p><u>March 7, 2013: Secretary's Order No. 2013-A-0008 Olefins Unit</u>. Restart of the olefins unit will increase</p>	<p>DAQ disagrees that the Title V permit as presented is an out-of-date document that does not reflect expansions and equipment restarts at the refinery. The Title V permitting program is designed to accommodate changes that occur within facilities and the permitting mechanism specifically allows a facility to make significant permit modifications to the permit to reflect these authorized changes. So, DAQ acknowledges receipt of applications for several projects at the Refinery since this permit application was submitted on May 22, 2012. As a matter of fact, in addition to the applications mentioned by the Sierra Club, the Department has received applications for additional railcar unloading registrations as well as permit applications for the modification of the WWTP VCU Fuel Change Project, the MVR Vapor Combustor Amendment Project and for the Boilers 3 and 4 Steam Injection Project. Indeed, for a complex facility like DCRC's DE City Refinery, DAQ fully anticipates that there will always be</p>

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	<p>projected air emissions from the refinery fuel gas fired olefins heater, product storage tanks, product loading rack emissions, and fugitive emissions. Emissions from these sources are estimated to total 9.2 TPY of nitrogen oxides, 3.7 TPY of sulfur dioxide, 1.2 TPY of carbon monoxide, 5.4 TPY of volatile organic compounds, 0.8 TPY of particulates, 0.8 TPY of fine particulates, 0.1 TPY of sulfuric acid, 0.0001 TPY of lead and 18,716 TPY of carbon dioxide equivalent. The public hearing for this permit application was not adequately noticed. Delaware Sierra Club, who requested this hearing, was not notified that the hearing had been scheduled until hours before the hearing. The hearing officer extended the public comment deadline by only 7 days (we requested 14 days, to which the refinery complained), but DNREC did not issue a public notice that the public comment period had been extended, or how to submit written comments. Instead, the hearing officer stated that the Delaware Sierra Club should provide this service.</p> <p><u>April 22, 2013: Secretary's Order No. 2013-A-0011 Ether Cooling Tower</u>, this closed loop cooling tower has been out of service since early 2002, and estimates that the following air pollutants will increase: Volatile Organic Compounds will increase by 5.5 tons per year; Particulate Matter (PM10) will increase by 1.7 tons per year, and Fine Particulate Matter (PM2.5) will increase by 1.7 tons per year.</p> <p><i>The Title V permit as presented is an out-of-date document that does not reflect expansions and equipment restarts at the refinery. Though we understand the temporal nature of the Title V permit process, we ask for a complete, up to date</i></p>	<p>ongoing changes that will invariably trigger permitting requirements thereby making the Title V permit for this facility a dynamic permit instrument. As a result, when changes occur, the facility has an obligation to make an application to update and amend their Title V permit within 12 months of making the change. Indeed, because of DAQ's cognizance of the complexities inherent in a facility like the DCR and in the Title V permitting mechanism itself, DAQ held an informal workshop on March 25, 2013 where these details were explained in detail. Therefore, DAQ considers the draft Title V permit to be an up-to-date permit.</p>
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	<i>accounting of air emissions at the Delaware City Refinery in writing within the next <u>14 days</u>, and that the public comment period for the Title V permit be extended <u>30 days</u> to enable us to respond to this information.</i>	
19-SC	<p>On April 7, 2013 the Division of Air Quality issued a public hearing notice for the Title V permit hearing, which was scheduled to take place on April 30, 2013. This provided 23 days of notice for a public hearing, yet DNREC is required by federal law (Title 40 CFR §70.7) to provide 30-days public notice.</p> <p>The justification provided for this by Mr. Ravi Rangan (by email on April 4, 2013), engineer in the Division of Air Quality, was that the notice was provided verbally to a group who attended a public workshop held by the Department on March 25, 2013. This explanation ignored the specific requirements for public notice provided in federal law:</p> <p>(1) Notice shall be given: by publication in a newspaper of general circulation in the area where the source is located or in a State publication designed to give general public notice; to persons on a mailing list developed by the permitting authority, including those who request in writing to be on the list; and by other means if necessary to assure adequate notice to the affected public (Title 40 CFR §70.7 (h)).</p> <p>The justification provided for this by Mr. Paul Foster (by email on April 4, 2013), enforcement officer for DNREC, was that the requirement for public notice was 20 days. This explanation failed to account for the specific notice requirements provided in federal law:</p>	<p>The Department provided more than the mandated 30 day notice requirement for the said hearing. Furthermore, the hearing officer granted an additional 30 day extension to the public comment period during the hearing on June 4, 2013. Therefore, DAQ does not find this comment to be germane to this TV permit renewal application.</p>

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	<p>(4) Timing. The permitting authority shall provide at least 30 days for public comment and shall give notice of any public hearing at least 30 days in advance of the hearing (Title 40 CFR §70.7 (h)).</p> <p>It was only after the intervention of elected officials that DNREC finally committed to rescheduling this hearing in a manner that was consistent with federal requirements. The public notice of the rescheduling of the hearing was issued on April 28, 2013, just two days before the original hearing date, and only following the Sierra Club's specific request that the rescheduled hearing be announced (by email on April 24, 2013).</p> <p>On May 28, 2013 the State of Delaware public calendar was changed and listed both the original location (Delaware City Community Center) and a new location (Gunning Bedford Middle School), creating a considerable amount of confusion about the location of the hearing and the possibility of two hearings taking place at the same time. After notifying DNREC as to two locations, the public calendar was updated to reflect Gunning Bedford Middle School. Although we had made the original public hearing request for this permit, we were not notified that the location had changed.</p> <p>On May 29, 2013 we received an email from Ms. Penny Gentry of DNREC notifying me that the location had changed again, to the Delaware City Fire Hall. The public notice for this change in location was not issued until May 30, 2013, 5 days before the hearing.</p> <p>As this course of events and sharing of misinformation conveys, DNREC was unfamiliar with the public notice requirements for Title V permits and attempted to conduct a</p>	
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	<p>hearing without the 30-days required public notice. A considerable amount of confusion has also resulted by the delays in issuing notices to the public about the hearing and the changes in location.</p> <p>In its authority to issue Title V permits, DNREC has the responsibility to know, understand and follow the law. DNREC also has the added responsibility of acting in a manner consistent with its values, "integrity, respect, customer focus, openness and quality". In both regards, this was not the case. If DNREC is unable to, or unwilling to, follow simple federal requirements for the public hearing process, we question the other aspects of the permit as well.</p> <p><b><i>We ask DNREC to extend the public comment period by <u>30 days</u> to assure the public that its comments will be included in the hearing officer's report.</i></b></p>	
20-SC	<p>Condition 2 – General Requirements, part D – Construction, Installation or Alteration, found on page 13 of the Draft Permit, describes:</p> <p>The Owner/Operator shall not initiate construction, installation, or alteration of any equipment or facility or air containment control device which will emit or prevent the emission of an air contaminant prior to submitting an application to the Department under Regulation No. 1102, and, when applicable, Regulation No. 1125, and receiving approval of such application from the department; except as exempted in the state of Delaware Regulation No. 1102 Section 2.2.</p> <p>Chapter 60 Delaware Code §6004 describes the permit application and hearing process, which includes the</p>	<p>DAQ disagrees with this comment. The three items mentioned are not permits, but are registrations issued in accordance with the requirements of 7 <b>DE Admin. Code</b> 1102 Section 9. Registrations apply to sources that emit between 0.2 and 10 pounds of pollutants per day and are not required to be advertised for public comment prior to issuance.</p>

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	<p>requirement of the Department to issue a public notice that includes:</p> <ul style="list-style-type: none"><li>(1) The fact that the application has been received;</li><li>(2) A brief description of the nature of the application; and</li><li>(3) The place at which a copy of the application may be inspected.</li></ul> <p>The Secretary shall hold a public hearing on an application, if he or she receives a meritorious request for a hearing within a reasonable time as stated in the advertisement.</p> <p>For the facilitation of information on public notices, DNREC maintains a public notice email distribution list where all public notices are distributed, and these notices are also posted on DNREC's public notices website.</p> <p>Since the refinery restart, the State of Delaware has issued several air pollution permits to the Delaware City Refinery without following this procedure:</p> <ul style="list-style-type: none"><li>• August 3, 2011: APC-2012/0003 Two New LPG Loading Slots at the LPG Railcar Loading Facility</li><li>• August 4, 2011: APC-2012/0110 Crude Oil Railcar Unloading Project, 30 railcars unloaded per day</li><li>• October 2, 2012: APC-2013/0030 Crude Oil Railcar Unloading Project, one unit train per day with 100 railcars at a 25 position rack</li></ul> <p>That these permits were issued by DNREC without public notice or the ability for public comment prevented DNREC from considering the impact of public health and the environment, for which its mission is to protect, within the permit. Public concerns about the rail unloading facility</p>	
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	<p>were aired at a public meeting at Wilbur Elementary School on February 27, 2013. These concerns included:</p> <ul style="list-style-type: none"><li>• The impact of diesel emissions from train engines on air quality.</li><li>• The impact of road crossings on traffic, emergency response and reduced air quality from idling vehicles.</li><li>• The impact of noise pollution on nearby residents.</li><li>• Offgassing of hazardous air pollutants from rail cars in transit, at the refinery, and at the holding yard at the former Chrysler plant in Newark.</li><li>• Potential for train accidents, which would spill hazardous pollutants into residential neighborhoods.</li><li>• Road congestion from the train crossings.</li></ul> <p>The public has been denied its rights to public comment and public hearing in the construction of the train offloading racks.</p> <p><b><i>Condition 2 – General Requirements, part D – Construction, Installation or Alteration of the Draft Title V Permit (p. 13) requires that the installation of any equipment at the refinery that shall emit any air contaminant have a permit issued prior to construction. In the case of the above-referenced air permits, DNREC did not follow its own procedures in issuing permits. We therefore ask DNREC that all permits for the Delaware City Refinery that have not been publicly noticed to be re-noticed and a public comment period be provided. We ask for a response to this request in writing within the next <u>14 days</u>, and that the public comment period for the Title V permit be extended <u>30 days</u> to enable us to respond to this information.</i></b></p>	
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21-SC	<p>Since the refinery restart, the State of Delaware has issued two air pollution permits to the Delaware City Refinery for crude oil railcar unloading, totaling 130 railcars per day:</p> <ul style="list-style-type: none"><li>• August 4, 2011: APC-2012/0110 Crude Oil Railcar Unloading Project, 30 railcars unloaded per day</li><li>• October 2, 2012: APC-2013/0030 Crude Oil Railcar Unloading Project, one unit train per day with 100 railcars at a 25 position rack</li></ul> <p>According to the December 9, 2010 "Transfer of Department of Natural Resources and Environmental Control Authorizations and Environmental Permits from Premcor to the Delaware City Refining Company" (Appendix C), there are no other air permits that have been issued to the refinery for rail unloading.</p> <p>Yet, at the Community Open House for the New Rail Operations at Wilbur Elementary School on February 27, 2013, Delaware City Refining Company manager Herman Seedorf publicly announced that the refinery was currently unloading 200 rail cars per day, and that this would increase to 250 train cars per day. This is well above the air permits for 130 train cars per day.</p> <p><b><i>We therefore ask DNREC to audit the amount of train cars unloaded at the refinery for both tar sands bitumen and other crudes, and to compare this to the quantities in the Refinery's existing permits and the Title V permit. We ask that this information be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></b></p>	See DAQ's response to comment #20-SC above.
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22-SC	<p>The air emissions from 200-250 rail cars per day, from the diesel exhaust from train engines, and offgassing or evaporation from the tank cars, is a health concern that has not been addressed.</p> <p>On June 12, 2012 the World Health Organization's International Agency for Research on Cancer issued a press release that announced that it had "classified diesel engine exhaust as carcinogenic to humans (Group 1), based on sufficient evidence that exposure is associated with an increased risk for lung cancer."</p> <p>The U.S. Centers for Disease Control and Prevention's National Program of Cancer Registries ranks Delaware as No. 10 in the nation for lung and bronchus cancers among males and females (2005-2009), with an age-adjusted cancer rate of 78.1 per 100,000 people. The increase in pollution from the Delaware City Refinery's crude-by-rail project places already at-risk communities along the train route, near the loop-track at the Refinery, and at the Norfolk Southern rail car holding yard next to the former Chrysler plant in Newark, in additional harm from diesel exhaust and possible offgassing from the rail cars. It also places the State of Delaware's conformity for transportation funds in jeopardy.</p> <p><b><i>We ask for accountability in the Title V permit for the mobile emissions of the train cars (diesel train engines, off-gassing) through our communities. Train emissions should be tabulated and included in the final Title V Permit. We ask DNREC for an assessment for the refinery's crude-by-rail diesel emissions in the State of Delaware, as well as a calculation of offgassing from the train cars (that</i></b></p>	<p>The Title V permit is a document that spells out all the conditions and requirements that the refinery must comply with as they pertain <i>to the applicable air quality regulations</i>. Mobile sources are not applicable requirements under the TV program. Therefore, DAQ does not find this comment to be germane to this TV permit renewal application.</p>
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	<i>considers future aging of new cars and the potential failure of seals). We ask that this information be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i>	
23-SC	<p>Title 7 Chapter 70 of the Delaware Code, the Coastal Zone Act, affords the Secretary of the Department of Natural Resources and Environmental Control with the responsibility of issuing permits within the coastal zone. The footprint of non-conforming use of the Delaware City Refinery appears on the map below of Star Enterprise. Title 7 DNREC Regulations §4.4 describes that the "expansion of any non-conforming uses beyond their footprint(s)" is prohibited. DNREC has allowed for the construction of a double-loop track outside of the footprint of non-conforming use. This occurred without any permit application or decision by the Secretary, and the possible creation of a new business entity, a "master limited partnership" that is not provided with grandfathering in the Coastal Zone Act.</p> <p><i>Condition 2 – General Requirements, part D – Construction, Installation or Alteration of the Draft Title V Permit (p. 13) requires that the installation of any equipment at the refinery that shall emit any air contaminant have a permit issued prior to construction. For the infrastructure needed for the unloading of crude oil by rail, which should have gone through a Coastal Zone Act review process, this was not the case. We therefore ask that all activities that are outside of the footprint for non-conforming use be discontinued immediately. We ask that written confirmation of the non-compliance with the Coastal Zone Act be provided within the next <u>14 days</u>, and that the public comment period be</i></p>	<p>The Coastal Zone Act and how it applies to the supply of crude oil to the Delaware City Refinery is not germane to the renewal of the facility's Title V permit for existing stationary sources within the refinery.</p>

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	<i>extended <u>30 days</u> to enable us to respond to this information.</i>	
24-SC	<p>Our concern over the increase of rail cars within the coastal zone has been amplified by the recent news that there was a derailment at the loop track on Saturday, May 25, 2013, which was confirmed by DNREC. Information provided to the Delaware Sierra Club states:</p> <p>“Some time on Saturday the 25Th of May 14 rail cars full of crude oil derailed and overturned on the refinery property at the new steaming station on the tracks behind the oil storage tanks closest to Buttermilk Falls. . . . Not only did the cars derail, they turned over and came off the trucks that carry the wheels on the cars. Two cranes from Pennsylvania and Maryland were brought in to put the cars back on the trucks.”</p> <p>Because no public notice was issued for the rail unloading permits, the public did not have the opportunity to question DNREC about safety and spill-prevention measures at the loop track. Measures should have been installed at this site to prevent spills from contaminating soil, ground- and surface-water so that the public is not required to pay the cleanup costs of environmental contamination in the future.</p> <p><b><i>We ask that the Environmental Impact Statement for this project be made available in writing in the next <u>14 days</u> and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></b></p> <p><b><i>We also ask that all a process be put into place in which all train derailments and accidents associated with the rail loop track and rail unloading facilities at the refinery be reported to the State of Delaware</i></b></p>	See DAQ's response to comment #20-SC above.

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	<i>immediately, and that these notices be distributed as part of the Delaware Environmental Release Notification System.</i>	
25-SC	<p>Page 21 of the draft Title V permit explains the emissions events that must be reported:</p> <p>B. Emissions in excess of any permit condition or emissions which create a condition of air pollution shall be reported to the Department immediately upon discovery and after activating the appropriate site emergency plan in the following manner:</p> <ol style="list-style-type: none"><li>1. Emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802.</li><li>2. Emissions in excess of any permit condition or emissions which create a condition of air pollution but do not pose an imminent and substantial danger to public health, safety or the environment must either be called in to the Environmental Emergency Notification and Complaint number (800) 662-8802 or faxed to (302) 739-2466 . . .</li></ol> <p>The permit does not describe the thresholds for each pollutant that must be exceeded in order to meet the definitions of "create a condition of air pollution" or "pose an imminent and substantial danger to public health, safety or the environment."</p>	<p>DAQ disagrees. The permit provides emission limitations for all point sources within the Delaware City Refinery. The purpose of this condition is to clearly state the sources reporting obligations. As is evident, the permit establishes a requirement for a source to report immediately upon discovery and after activating the appropriate site emergency plan all emissions that pose an imminent and substantial danger to public health, safety or the environment must be reported by calling the Department's Environmental Emergency Notification and Complaint number (800) 662-8802. However, when excess emissions occur (i.e., emissions in excess of any permit condition or emissions which create a condition of air pollution) but which do not pose an imminent and substantial danger to public health, safety or the environment the facility must either call the Environmental Emergency Notification and Complaint number (800) 662-8802 or fax the notification to (302) 739-2466. <b>7 DE Admin. Code</b> 1101 defines "Air Pollution" to mean the presence in the outdoor atmosphere of one or more air contaminants in sufficient quantities and of such characteristics and duration as to be injurious to human, plant, or animal life or to property or which unreasonably interferes with the enjoyment of life and property within the jurisdiction of the State, excluding all aspects of employer-employee relationships as to health and safety hazards. Thus any permit exceedance is construed to create a condition of air pollution rendering moot Sierra Club's suggestion to describe threshold levels for each pollutant that must be exceeded in order to create a condition of air pollution.</p>

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	<p>While Title 7 DNREC regulations 1203 Reporting of a Discharge of a Pollutant or Air Contaminant describes reporting thresholds for a list of air pollutants, this list is not specific to meet the requirements of the draft Title V permit, to "create a condition of air pollution" or "pose an imminent and substantial danger to public health, safety or the environment."</p> <p><i>We ask that a detailed table of the pollution thresholds for "create a condition of air pollution" and "pose an imminent and substantial danger to public health, safety or the environment" be included in the permit, and that this table be made available for public comment prior to the finalization of the permit. We ask that this table be provided within the next <u>14 days</u>, and that the public comment period for the Title V permit be extended <u>30 days</u> to enable us to respond to this information.</i></p>	
26-SC	<p>Page 21 of the draft Title V permit describes:</p> <p>iii. Prior to making a change as provided in Condition 4 [Operational Flexibility] of this permit the Owner and/or Operator shall give written notice to the Department and EPA at least seven calendar days before the change is to be made.</p> <p><i>This section does not include any requirements for public notice of changes made to the facility. We ask that public notice requirements be included in the permit for all changes made to the facility. We ask for written confirmation within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></p>	<p>DAQ disagrees. The applicable requirements of 7 <b>DE Admin. Code</b> 1130 do not contain any public notice requirements when companies make changes provided for in the Operational Flexibility conditions. Each permit issued under 7 <b>DE Admin. Code</b> 1130 shall provide that a permitted facility is expressly authorized to make a section 502(b)(10) (of the Act) change within the facility without a permit revision, if the change is not a modification under any provision of Title I of the Act or the State Implementation Plan (SIP), does not involve a change in compliance schedule dates, and the change does not result in a level of emissions exceeding the emissions allowable under the permit, whether expressed therein as a rate of emissions or in terms of total emissions. However, before making a change under this provision, the permittee shall provide advance written notice to the Department and to EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected, including any new applicable requirements. The permittee shall thereafter maintain a copy of the notice with the permit. The written notice shall be provided to EPA and the</p>

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		Department at least seven calendar days before the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven calendar days' notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to EPA and the Department as soon as possible after learning of the need to make the change, together with the reason or reasons why advance notice could not be given. Therefore, DAQ does not find this comment to be germane to this TV permit renewal application.
27-SC	<p>Page 22 of the draft Title V permit describes:</p> <p>iv. The Owner and/or Operator shall submit to the Department an annual emissions statement in accordance with 7 DE Admin Code 117 Section 7.0 . . .</p> <p><i><b>This section does not include any requirements for public notice of annual emissions statements for the facility. We ask that public notice requirements be included in the permit for all emissions statements. We ask for written confirmation of the inclusion of this in the Title V permit within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</b></i></p>	DAQ disagrees. All annual emissions statements submitted by the facility pursuant to 7 <b>DE Admin. Code</b> 1117 are documents that are available for public review. Therefore, DAQ does not find this comment to be germane to this TV permit renewal application.
28-SC	<p><u>Flaring Minimization Plan</u></p> <p>According to email correspondence dated April 25, 2013 from Mr. Ali Mirzakhali of DNREC Air Quality Management Section to the Delaware Sierra Club, the Delaware City Refinery does not have a plan to minimize flaring at the facility. He stated that New Source Performance Standards subpart Ja will require flaring management plans in 2015. In reading those regulations in the Federal Register, we are</p>	DAQ disagrees. The refinery's flare gas recovery system operates at all times and is designed to recover all off-gasses from the refinery's various process units. In emergency and atypical situations, the flares are designed to combust those gases to minimize pollutants released to the environment. VOC emissions from a flaring event are minimized because flares have a VOC destruction efficiency of 98%. It is noteworthy that there has been a marked decrease over the past year of instances when the refinery has flared. However, DAQ will ensure that refinery's flaring management plan, when it becomes applicable, will address all applicable requirements of the New

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	<p>concerned that this may not apply to flaring systems at the Delaware City Refinery, which are not new and may not experience the minimum threshold of repairs for this new regulation to go into effect.</p> <p>Of the numerous flaring events in recent months at the refinery, a leading cause is power failure. The most famous of these recent events was caused by a raccoon that got into high-voltage switch gear on November 27, 2011, contributing to an electrical shut down that caused the release of 1000 pounds of carbon monoxide, 10 pounds of hydrogen cyanide, 100 pounds of hydrogen sulfide, and 500 pounds of sulfur dioxide. Other power failures have resulted in flaring and the release of hazardous air toxins which seem to occur on a regular basis.</p> <p>Volatile Organic Compounds (VOCs) and Sulfur Dioxide (SO<sub>2</sub>) released during flaring events can have numerous acute and long-term health implications, including asthma attacks, eye, skin and nose irritation, as well as the deleterious effects of high-stress "shelter in place" procedures required during extreme flaring incidents.</p> <p><b>We ask that a Flare Minimization Plan be developed and implemented within one year as a requirement for this Title V permit. The plan should include:</b></p> <ul style="list-style-type: none"><li><b>a) anti-surge control systems on coker units wet gas compressors;</b></li><li><b>b) flare monitoring equipment, including a description of the manufacturer's specifications of flow metering devices, including the make, model, type, range, precision, accuracy, calibration,</b></li></ul>	<p>Source Performance Standards. Additionally, as mentioned in DAQ's response to the EIP's comment on flaring, DAQ's approach to ensuring minimization of flaring practices is amongst the most stringent in the nation. This is because DAQ's draft permit, while it allows operation of the flare to safely combust and dispose of gases that would otherwise pose a threat to the refinery, it nonetheless does not authorize any emissions that result from such flaring. In other words with the exception of emissions resulting from operation of the flare pilots (which by definition have to be lit at all times), any and all flare emissions are considered to be excess emissions. DAQ believes such excess emissions, should they occur, are adequately addressed by DAQ's enforcement program. Furthermore, DCRC's flaring and blowdown system is equipped with a flare gas recovery system and the draft permit requires at least 1 flare gas recovery compressor to be operational at all times. The draft permit also requires weekly sampling of the flare header followed by chromatographic analysis. Therefore, DAQ does not see the necessity to specify the additional requirements suggested by the Sierra Club.</p>
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	<p>maintenance and quality assurance procedures;</p> <p>c) flaring reduction hardware;</p> <p>d) flare gas recovery system(s);</p> <p>e) tank emissions equipment;</p> <p>f) sulfur recovery unit(s); and</p> <p>g) backup power generation capacity to prevent flaring in the case of power failure.</p> <p><b>The Flare Minimization Plan should include public input to assure the public that its concerns are being addressed in the plan.</b></p> <p><b>We ask DNREC to provide us with written confirmation of the timeline for implementation of a Flare Minimization within the next <u>14 days</u>, and that the public comment period for the Title V permit be extended <u>30 days</u> to enable us to respond to this information.</b></p>	
29-SC	<p>The Delaware City Refinery has had numerous permit violations, the most recent of which was 2013-11779, enforcement action served on May 30, 2013 for an unpermitted release of 527,000 pounds of sulfur dioxide in January 2013 from the Fluid Coking Unit (FCU) Carbon Monoxide Boiler (COB).</p> <p>The Delaware Environmental Release Notification System (DERNS) notice for this emissions event, issued on January 16, 2013, indicated that 3000 pounds per hour will be released daily during repairs to the boiler.</p> <p>DNREC has not established a fee schedule for the costs that violating permits should accrue for pollution. DNREC's lack</p>	DAQ disagrees. See DAQ's response to comments #3-SC and #4-SC.



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	<p>of a penalty schedule was confirmed by email from Mr. Ali Mirzakhali on April 25, 2013.</p> <p><i>We ask that DNREC develop a fee schedule for permit violations for this facility, which we ask to be included in the Title V permit. The fee schedule should include a multiplying factor for chronic violator status. We ask that this fee schedule be provided in writing within the next <u>14 days</u>, and that the public comment period for the Title V permit be extended <u>30 days</u> to enable us to respond to this information.</i></p>	
30-SC	<p>DNREC has existing regulations for chronic violator status that were established in 2004. In 2011, SB 92 w/ HA 1 revised Title 7 Chapter 79 of the Delaware Code for DNREC's chronic violator program and clarified definitions, standards and criteria, and updated DNREC's authority. DNREC has not yet revised its chronic violator regulations or initiated the regulatory rule-making process to bring them up to date with the recent revisions to the Delaware Code.</p> <p>"The purpose of chronic violator status is to provide a mechanism for preventing or correcting circumstances in which: (1) One or more of the traditional enforcement tools and regulatory programs of the Department appear insufficient to conform behavior and deter future violations by the regulated party; or (2) The regulated party appears to be treating penalties and other sanctions as merely an on-going business expense rather than as symptomatic of underlying problems and threats to the State's environment that must be addressed and corrected" (Title 7 Delaware Code § 7901c).</p>	DAQ Disagrees. See DAQ's response to comment #4-SC

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On August 6, 2012 we requested that DNREC establish chronic violator regulations and designate the Delaware City Refinery as a chronic violator. In a reply dated August 23, 2012, Mr. Ali Mirzakhaili advised that the public comment period for Executive Order 36 would be an opportunity to review this issue. Our public comment at the Executive Order 36 hearing on January 22, 2013 and our written comments dated February 26, 2013 reiterated our request.

**As a condition of this Title V permit, we ask DNREC to immediately begin to develop the needed regulatory updates to its chronic violator regulations, and to complete this process in 2013. We ask DNREC to include the following in the review of chronic violator regulations:**

- a) Prioritize the establishment of regulations for the designation of chronic violator status and initiate rule-making proceedings within the next six months.**
- b) Consider the environmental justice impacts of the pollution caused by permit violations when making decisions about penalties.**
- c) Utilize the chronic violator regulations as a mechanism to decrease the ability of industries to pollute as the cost of doing business by increasing penalties for designated industries.**
- d) Include a mechanism for citizens to petition to initiate proceedings for the designation of chronic violator status.**
- e) Require that proceedings for designation of chronic violator status be conducted in a timely manner, with specific deadlines as part of the regulations.**

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	<p><b>f) Enhance the transparency of the regulatory process by providing all permits, permit applications, and documents pertaining to permit violations on the DNREC website.</b></p> <p><i>We ask for a timeline for the development of chronic violator regulations provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></p>	
31-SC	<p>Air quality monitoring has been a long-standing point of concern at the refinery, and the Delaware Sierra Club and our environmental justice partner the Delaware City Environmental Coalition have asked for real-time air monitoring at the fenceline of the refinery and in residential neighborhoods on numerous occasions since the refinery was purchased by PBF in June 2010.</p> <p>While owned by Premcor, the refinery operated ambient air monitoring stations for total suspended particulates. In the May 31, 2010 "Agreement Governing the Acquisition and Operation of Delaware City Refinery" Secretary O'Mara authorized the refinery to discontinue use of ambient air quality monitors (p. 18).</p> <p>Using penalty funds for permit violations paid by the Delaware City Refinery, the Delaware City Environmental Coalition, under the oversight of DNREC's Community Involvement Advisory Council, contracted with an independent local environmental consulting firm for air quality monitoring for a pilot project that compared air quality in residential neighborhoods before and after the refinery restart. This air monitoring pilot project demonstrated the need for continuous air monitoring in at the fenceline of the refinery and in residential</p>	DAQ disagrees. See DAQ's response to comment #15-SC.

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	<p>neighborhoods to insure compliance with permit conditions and to protect public health.</p> <p>We have recently learned that the Delaware City Refinery contracted with Environmental Resources Management (ERM) to repeat this study in March of 2013. The announcement (Appendix D) that the Refinery has circulated to neighbors about this project states that they selected ERM:</p> <p style="padding-left: 40px;">"because they are a well-respected, professional firm with worldwide environmental engineering experience."</p> <p>To the contrary, the U.S. State Department's Office of Inspector General has launched a conflicts-of-interest investigation into ERM for its role in the environmental impact assessment of the TransCanada Keystone XL pipeline. The relationship between the Delaware City Refinery, which is now refining Canadian tar sands, and this company calls the refinery's air monitoring study into question.</p> <p>Further, the Refinery claims that:</p> <p style="padding-left: 40px;">"To conduct this study, they [ERM] used the highest technical standards, which were reviewed in advance by DNREC."</p> <p>However, in the March 25, 2013 workshop held by DNREC for the Delaware City Refinery's Title V Permit, Mr. Ali Mirzakhali, division director of Air Quality, explained to the contrary that DNREC has had nothing to do with this study.</p>	
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	<p>The need for DNREC's leadership in protecting public health and the environment through the design and oversight of a scientifically rigorous continuous air monitoring study is long overdue. Currently, residents in surrounding communities have no way of accurately gauging the real-time status of air quality in their neighborhoods. This is especially important during upsets at the refinery, when air quality can dramatically change. Particularly, given the requested pollution levels in this permit, publically-accessible real-time air quality monitoring is needed to allow our community to understand air quality threats to health and safety in a timely manner.</p> <p>Communities need strong, real-time monitoring provisions to protect their health and safety, including by providing real-time information into an alert system used to warn people when there is a malfunction or emergency, a major problem with refineries.</p> <p><b><i>We ask that the installation of a continuous real-time emission monitoring program at the fence-line of the refinery and in residential neighborhoods be a condition of this Title V permit. This program should be developed in collaboration with the public to insure that the needs of public health are being achieved. We ask that a timeline for the development of a real-time monitoring program be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></b></p>	
32-SC	<p>The Delaware City Refinery has had major pollution events in the past, for which no safety plan has gone into effect that alerts nearby residents of the measures that must be taken to protect their health and families.</p>	<p>DAQ disagrees. While, DAQ notes that the State of Delaware employs a fully trained State Emergency Response Team and local fire departments to aid in situations envisioned within this comment, the Sierra Club's proposed terms and conditions to be included in the Title V permit are not applicable</p>

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	<p>Refineries in the United States have had catastrophic explosions and air pollution incidents, which should be learning experiences for the Delaware City Refinery:</p> <ul style="list-style-type: none"><li>• August 2012 Chevron Oil Refinery in Richmond California: crude distillation unit caught fire. Residents were advised to shelter in place and 11,000 people were treated in hospitals.</li><li>• April 2013 Marathon Refinery in Detroit Michigan: a tank containing diesel fuel exploded during routine maintenance. Some residential communities were evacuated, leading to concerns about environmental justice in emergency response plans.</li></ul> <p>We cannot afford to wait for a disaster of this kind, or another catastrophe of the type of the July 17, 2001 sulfuric acid tank explosion that released 1.1 million gallons of sulfuric acid, 99,000 gallons of which reached the Delaware River, killing fish and other aquatic life. One refinery worker was killed and eight others were injured in this explosion.</p> <p>We understand that various agencies have responsibility for emergency response and that some progress has been made in this regard.</p> <p><i><b>As a condition of this Title V permit, we ask for the collaborative development of a robust and easily accessible Emergency Response and Evacuation Plan that community members can reference in case of a major incident. In addition to approval by the public, the plan should also be approved by the EPA prior to this Title V permit renewal. We ask that a process for the development of this plan be provided in writing within the next 14 days, and that the</b></i></p>	<p>requirements as defined in section 2 of 7 <b>DE Admin. Code</b> 1130. Therefore, DAQ does not find this comment to be germane to this TV permit renewal application.</p>
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	<i>public comment period be extended <u>30 days</u> to enable us to respond to this information.</i>	
33-SC	<p>The increases in pollution levels requested in the permit application are of particular concern as the area surrounding the refinery has been identified as a census tract of high cancer risk.</p> <p>According to the Centers for Disease Control and Prevention and the Department of Health and Social Services, the area of surrounding the refinery is a high cancer census tract.</p> <p>Age-Adjusted Cancer Rates per 100,000 people: United States = 465.1 State of Delaware = 517.0 Delaware City's Census Tract = 680.5</p> <p>The relationship between public health and the hazardous air pollutants emitted from the Delaware City Refinery has not been addressed in this permit application, which instead proposes to increase harmful air pollutants.</p> <p><i><b>We request that the cumulative health impacts of hazardous pollutants from the Delaware City Refinery, in conjunction with the numerous other polluting facilities in the area immediately surrounding the refinery, be utilized to set pollution limits in this Title V permit. We ask that pollution limits be revised to reflect the suggested reduction measures, and that confirmation of new limits be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</b></i></p>	<p>As mentioned above in our response to Comment #1-SC, this permitting action does not itself allow the emissions increase. Any emissions changes were already authorized as part of the permitting steps ending in issuance of the operation permits mentioned above on September 7, 2011. The current permitting action only moves the current limits from the individual operation permits into the facility wide Title V permit.</p>

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34-SC	<p>The Delaware City Refinery has exercised intimidation tactics against the public and community members concerned about pollution and their health. Security vehicles follow and pull-over our cars on public roads in use long before the construction of the refinery, follow us home, and state police are asked to follow up. Such intimidation presents a deterrent to public engagement over health and safety at the refinery and must come to an end.</p> <p>In April 2013 Department of Natural Resources and Environmental Control Community Ombudsman James Brunswick and Chief of Enforcement, Jim Faedtke, at our request, attempted to schedule a meeting with the refinery to address these concerns. The refinery has claimed Homeland Security Rights-of-Way give them the right to prevent people from looking at the refinery and taking photographs from public roads. The refinery has refused to either provide a map of where these rights of way are located, or to meet with DNREC and the public about areas where the refinery is legally able to approach the public.</p> <p><i>As active and concerned members of the community, we request an open and collaborative relationship with the Delaware City Refinery and an end to current intimidation tactics so that we can gain a better understanding of the facility's operations and role in our neighborhood. We request a map of the rights of way of the refinery be provided within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information. We request a public meeting to address intimidation within the next 30 days, and that the hearing record for the Title V permit is held open</i></p>	<p>DAQ does not find this comment to be germane to the renewal of this Title V permit.</p>
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	<i>during this event to include the comments and dialogue that occurs at this meeting.</i>	
35-SC	<p>On April 24, 2013 DNREC held a public hearing for Regulations 1108 Sulfur Dioxide Emissions from Fuel Burning Equipment, which revise the State of Delaware's compliance regulations for the National Ambient Air Quality Standards set forth in the Clean Air Act. Section 1.2 of the proposed regulations provides for exemptions to the regulations, which adds fluid catalytic cracking to the list of exempted processes, which also include fluid coking and catalyst regeneration.</p> <p>The existing exemptions for fluid coking and catalyst regeneration, and the proposed exemption for fluid catalytic cracking from SO<sub>2</sub> regulations, provides for an exception for one of the largest sources of SO<sub>2</sub> emissions in Delaware, the Delaware City Refinery. DNREC's November 2012 <i>Delaware Toxics Release Inventory Data Detail</i> found the Delaware City Refinery to be the second-largest polluter in the state, behind the Indian River Power Plant. Since May 27, 2011 the PBF Delaware City Refinery and the DuPont Red Lion Sulfuric Acid Regeneration Plant have been the sole sources of SO<sub>2</sub> Delaware Environmental Release Notification System (DERNS) notices in the state.</p> <p>It is inappropriate to exempt one of Delaware's largest polluters, the Delaware City Refinery, and its dependent regeneration plant, the DuPont Sulfuric Acid Regeneration Plant, from SO<sub>2</sub> regulations which are intended to protect public health.</p> <p>SO<sub>2</sub> is regulated in the NAAQS for important health reasons. The EPA describes these health risks:</p>	<p>DAQ disagrees. 7 <b>DE Admin. Code</b> 1108 was finalized on July 11, 2013, rendering the comment moot.</p>

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	<p>"Current scientific evidence links short-term exposures to SO<sub>2</sub>, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing.)</p> <p>Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children, the elderly, and asthmatics."</p> <p>Exempting refinery processes from these SO<sub>2</sub> regulations presents an unnecessary risk to public health, particularly in communities surrounding the Delaware City Refinery. We therefore ask that all exemptions in Section 1.2 be removed from the final regulations, including fluid catalytic cracking, fluid coking and catalyst regeneration.</p> <p><i>We ask if DNREC to clarify if it has included exemptions to NAAQS regulations as part of this Title V Permit. We ask that this information be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></p> <p><i>We ask DNREC to initiate a process immediately that removes all exemptions for the Delaware City Refinery from pollution regulations as a condition of this Title V permit. We ask that a timeline for this process be provided in writing within the next <u>14 days</u>, and that the public comment period be</i></p>	
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	<i>extended <u>30 days</u> to enable us to respond to this information.</i>	
36-SC	<p>EPA has recently proposed a rule to address inadequacies in state implementation plans under the Clean Air Act that exempt emissions from startup, shutdown and maintenance (SSM) of facilities. As noted in Sierra Club's comments to that proposed rule, exemptions of SSM emissions conflict with statutory requirements under the Clean Air Act that all emissions in excess of allowable limits must be considered violations. Exemptions of SSM emissions also interfere with EPA's and citizens' statutory authority to enforce compliance with emissions limits.</p> <p>Title 7 DNREC Regulations 1114 exempt the start-up and shut-down of equipment from visible emissions regulations, and the rules apply only to continuous operations. It is during this period of start-up and shut-down that visible emissions are often the greatest. Given the numerous times per day that equipment could be starting up or shutting down, which are exempt from air quality regulations, suggests that DNREC does not provide adequate protections for visible emissions.</p> <p><i><b>We ask DNREC to take the lead on closing these exemptions for refinery start-up and shutdown, starting with the Delaware City Refinery. We ask that a timeline for this process be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</b></i></p>	<p>DAQ concurs. DAQ has taken the lead on eliminating emissions exemptions that occur during periods of startups, shut downs and malfunctions. This permit does not provide any exemptions for emissions that occur during periods of startups, shut down or malfunctions. In other words, the annual mass emission limitations specified in the permit are applicable for emissions that occur during periods of startups, shut downs and malfunctions. Having said that, it should be noted that the refinery's process units are designed to operate in continuous, steady-state operation and may come offline for a turn-around at specified intervals, typically between 36 and 48 months depending on the process unit in question and on the severity of operating conditions. Process units do not start up and shut down numerous times a day. For the large unit operations like the fluid coking unit, the fluid catalytic cracking unit and the sulfur plant, all with complex start up and shut down procedures, this permit has very detailed and prescriptive procedures that apply during such periods. But all mass emissions are included in the respective annual limits and none are given a "free pass" during these times.</p>
37-SC	<p>On August 31, 2002, the Clean Water Act NPDES permit for the Delaware City Refinery expired, and the amount of</p>	<p>This permitting action pertains to the renewal of the facility's Title V permit which is an air permit issued in accordance with <b>7 DE Admin. Code 1130.</b></p>

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	<p>aquatic life destroyed by the refinery's once-through cooling system is well documented in the following reports:</p> <ul style="list-style-type: none"><li>• Normandeau Associates 2001: Impingement and Entrainment at the Cooling Water Intake Structure of the Delaware City Refinery, April 1998 - March 2000.</li><li>• ESSA Technologies 2001: Review of Report on Impingement and Entrainment at the Cooling Water Intake Structure of the Delaware City Refinery, April 1998 - March 2000.</li><li>• EPA 2002: Delaware Estuary Watershed Case Study.</li><li>• Kahn 2008: Impacts of Impingement and Entrainment Mortality by the Delaware City Refinery on Fish Stocks and Fisheries in the Delaware River and Bay.</li><li>• DNREC 2009: Memo for Delaware City Refinery Draft Subaqueous Lands Permit and Water Quality Certification.</li><li>• DNREC 2010: Secretary's Order re: Application to Dredge Portions of the Delaware River and Cedar Creek Near Delaware City.</li><li>• DNREC 2011: BTA Determination - NPDES Permit Requirements for Cooling Water Intake and Discharges at Delaware City Refinery and Power Plant.</li><li>• DNREC 2011: BTA Determination - Baseline Economic Viability of the Delaware City Refinery and Power Plant.</li><li>• DNREC 2011: NPDES Permit for Delaware City Refinery Cooling Water Intake (Pre-Notice Draft).</li></ul> <p>On December 19, 2012 DNREC held an air pollution public hearing for an ether cooling tower, which appears on page</p>	<p>The cooling water needs of the Delaware City Refinery and the NPDES permit fall under the purview of the Water Program administered by the Department's Division of Water Resources. Therefore, DAQ does not find this comment to be germane to this permitting action.</p>
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	<p>211 of the Title V permit. In this hearing, we requested that the refinery be issued an updated NPDES permit as a condition of this ether cooling tower permit. We have received no response to this request.</p> <p>On March 28, 2013 the Delaware Economic Development Office issued the Refinery 27 Emission Reduction Credits as offsets for the operation of the Ether Plant cooling tower's reduction in the intake of Delaware River water for cooling (Appendix B). That air pollution increases are allowed for reductions in water intake without a new NPDES permit is highly inappropriate, yet through these claims of economic benefits of water intake at the Refinery, the Delaware Economic Development Office has tied the issuing of air permits and water permits together.</p> <p><b><i>We ask that DNREC require the Delaware City Refinery to apply for and obtain a National Pollution Discharge Elimination System permit within 6 months. We ask that the timeline for this process be provided in writing within the next <u>14 days</u>, and that the public comment period be extended <u>30 days</u> to enable us to respond to this information.</i></b></p>	
38-SC	<p>Petroleum coke is a major byproduct of refining crude oil, which is expected to become more problematic as the refinery shifts to increasing amounts of tar sands. Petroleum coke has recently become the center of national controversy as other tar sands refineries have begun to stockpile this black, coal-like waste.</p> <p>The former method for disposing of petcoke was burning it onsite. We understand that the refinery has recently shifted to exporting petcoke to China, where it is burned overseas. While this reduces local pollution, on a global scale, given</p>	<p>DAQ disagrees. DCRC has completed construction of a fully enclosed state-of-the-art coke storage and handling facility in accordance with the Agreement governing the Acquisition and Operation of the Delaware City Refinery. DAQ inspections have found no violations associated with DCRC's operation of the new coke storage and handling facility. With regard to the Sierra Club's comment on the gasifiers being restarted, DAQ notes that this draft TV permit effectively cancels the authorization for these emissions units and renders this comment moot.</p>

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	<p>lax pollution standards outside the United States, the process of exporting petcoke to China for use as fuel will make global pollution worse. The burning o petcoke is an environmental justice issue as well as a concern for climate change.</p> <p>Although the Refinery's draft Title V permit indicates that the Texaco Gasifiers have been permanently shut down, we lack confidence in the enduring nature of this statement. With the refinery now back in operation and given the recent restart of the ether cooling tower and olefins unit, we are concerned that the gasifiers can come back on-line as well.</p> <p><b><i>To protect the community from harmful emissions resulting from the use of the Texaco gasifiers, we ask that DNREC require the Delaware City Refinery to draft and publicize a long-term plan for the storage and removal of petroleum coke waste, which includes contingency plans if market conditions that make the export of petcoke to China advantageous change. We ask for this plan within <u>14 days</u>, and ask that the comment period be held open for <u>30 days</u> to allow us the opportunity to respond to your answers to our requests.</i></b></p>	
39-EPA	<p>As you are aware, Section IV of the Consent Decree (CD) regarding Civil Action No. H-01-0978 required the Delaware City Refinery to install Selective Non-Catalytic Reduction (SNCR) technology at the Fluid Coker Unit (FCU) and implement the use of Nitrogen Oxide (NOx) adsorbing catalyst at the Fluid Catalytic Cracking Unit (FCCU) to reduce NOx emissions at these process units. Paragraphs 15 and 25 of the CD further require that both short and long term concentration based NOx emission limits be set at the</p>	<p>While DAQ does not disagree with EPA, DAQ believes it will be helpful to review the CD requirements and thereby provide the necessary clarification as to why these short and long term limits do not appear in the TV permit.</p> <p>Paragraph 15 of Section IV of the CD states:</p> <p><b><i>C. SNCR Outlet Emission Limits.</i></b></p> <p><b><i>15. As part of its Optimization Study report, Motiva shall propose to EPA short and long term concentration based limits, each at 0 % oxygen, and rolling</i></b></p>

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	<p>FCU and FCCU respectively. EPA Region III believes that these NOx limits established pursuant to the CD that were contained in the previous Title V permit are still applicable and should be retained in the new permit.</p>	<p><i>averaging times (i.e., 3-hour, 12-hour, or 24-hour for short term rolling averages and 365-day for a long term rolling average) for FCCU and FCU NOx emissions, for optimized operation of the control system consistent with the provisions of Paragraphs 11 – 14. Motiva shall comply with the limits it proposes beginning immediately upon submission of its Optimization Study report to EPA, until such time as Motiva is required to comply with the emission limits set by EPA, pursuant to Paragraphs 16 and 17.</i></p> <p>Furthermore, Paragraphs 16 and 17 state:</p> <p><i>16. EPA will use the CEMS data collected during the Optimization Study and all other available and relevant information to establish limits for NOx emissions from the Norco FCCU and Delaware City FCU. EPA may establish NOx concentration limits based on a short term (e.g., 3-hour) rolling average and a long term (i.e., 365-day) rolling average, each at 0 % oxygen. EPA will determine the NOx concentration limits and averaging times for the Norco FCCU and Delaware City FCU based on the level of performance during the Optimization Study, a reasonable certainty of compliance, and any other available pertinent information.</i></p> <p><i>17. EPA will notify Motiva of NOx concentration limits and averaging times for each unit, and Motiva shall immediately, or within 30 days if EPA's NOx concentration limit is different from Motiva's proposed limit, operate its SNCR systems at the Norco FCCU and the Delaware City FCU so as to comply with the established emission limits.</i></p> <p>Paragraph 25 of Section IV of the CD states:</p> <p><b><u>G. FCCU (Additives) Emission Limits.</u></b></p> <p><i>25. As part of its report required by Paragraph 23, Motiva shall propose to EPA short and long term concentration based limits, each at 0 % oxygen, and rolling averaging times (i.e., 3-hour, 12-hour, or 24-hour for short term rolling averages and 365-day for a long term rolling average) for FCCU and FCU NOx emissions, consistent with the provisions of Paragraphs 22 through 24. Motiva shall comply with the limits it proposes beginning immediately upon submission</i></p>
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		<p><i>of its report to EPA, until such time as Motiva is required to comply with the emission limits set by EPA, pursuant to Paragraphs 26 and 27.</i></p> <p>Furthermore, Paragraphs 26 and 27 state:</p> <p><i>26. EPA will use the CEMS data collected during the demonstration and all other available and relevant information to establish limits for NOx emissions from the Port Arthur, Convent and Delaware City FCCUs. EPA may establish NOx concentration limits based on a short term (e.g., 3-hour) rolling average and a long term (i.e., 365-day) rolling average, each at 0 % oxygen. EPA will determine the NOx concentration limits and averaging times for the Norco FCCU and Delaware City FCU based on the level of performance during the demonstration, a reasonable certainty of compliance, and any other available pertinent information.</i></p> <p><i>27. EPA will notify Motiva of NOx concentration limits and averaging times for each unit, and Motiva shall immediately, or within 30 days if EPA's NOx concentration limit is different from Motiva's proposed limit, operate the Port Arthur, Convent and Delaware City FCCUs so as to comply with the emission limits established by EPA.</i></p> <p>DAQ notes that the results of the Optimization Study for the Delaware City FCU SNCR and the demonstration study for the Delaware City FCCU have been completed and submitted to EPA. However, EPA has to date not established short and long term concentration based limits for the Delaware City FCU and FCCU as required by Paragraphs 16 and 26 of the CD respectively. Therefore, DAQ has not incorporated these limits in the present TV permit with the exception of a short term limit of 152 ppmvd at 0 % oxygen on a 30-day rolling average basis for the FCU. This limit existed in a State issued Operation Permit on a 24-hour rolling average basis. The averaging time was changed to a 30-day rolling average when the facility requested operational flexibility during development of the NOx PAL for the facility.</p>
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